

<a href="#">home</a>		<b>Lathe G-code</b>			
released: Oct 13					
P3 ckd		new codes since last release			
Ref Man	Type Code	Code	Functional explanation	S/B	
p	pgm	B	G00	Positioning	S
p	pgm	B	G01	Linear interpolation	S
p	pgm	B	G02	Circular interpolation (CW)	S
p	pgm	B	G03	Circular interpolation (CCW)	S
p	pgm	B	G04	Dwell	S
			G05		
			G06		
			G07		
			G08		
			G09		
p	spc		G10	Coordinate move Parallel/Rotate mode OFF	S
p	spc		G11	Coordinate move Parallel/Rotate mode ON	
	2spH	A	G11	OGL- Ignore In-position state	S
			G12		
p	pgm	B	G13	Turret selection: Turret A	S
p	pgm	B	G14	Turret selection: Turret B	S
	2spH	A	G15	OGL- Position Skip Command (Adapt G00)	S
p	spc		G15	Coordinate select (modal)	
p	spc		G16	Coordinate select (Single block)	S
p	pgm	I	G17	Tool nose radius comp: X-Y plane selection	S
p	pgm	I	G18	Tool nose radius comp: X-Z plane selection (default)	S
p	yax	I	G19	Tool nose radius comp: Y-Z plane selection	
p	yax	I	G20	Move to home position (HP=x, 1-8)	S
p	mult	I	G21	Move to ATC home position (HP=x, 1-6)	S
p	pgm	I	G22	Torque skip	S
p	2spH	I	G23	OGL- Torque limit check	S
p	list		G24	Move to ATC home position (not rapid linear interp)	
p	list		G25	Joint position movement (not rapid linear interp)	S
	2spH	A	G26	OGL- Variable Accel/Decel OFF	S
	2spH	A	G27	OGL- Variable Accel/Decel ON	
p	pgm	I	G28	Torque limit: Cancel	S
p	pgm	I	G29	Torque limit	S
p	gag	I	G30	Skip cycle (gauging)	S
				<b>Thread Cycles</b>	--
p	pgm	B	G31	Fixed thread cutting cycle: Longitudinal	S
p	pgm	B	G32	Fixed thread cutting cycle: End face	S
p	pgm	B	G33	Fixed thread cutting cycle: Longitudinal	S
p	pgm	B	G34	Variable lead thread cutting cycle: Increasing lead	S
p	pgm	B	G35	Variable lead thread cutting cycle: Decreasing lead	S
p	list	I	G36	Feed-shaft synchronized feed for M-tool spindle: Forward	S
p	list	I	G37	Feed-shaft synchronized feed for M-tool spindle: Reverse	S
			G38	(G37/36: used for Rigid tap)	S
p	OEG		G39	Arc Command of Corner (O-082, 05)	S
p	pgm	B	G40	Tool nose radius compensation: Cancel	S
p	pgm	B	G41	Tool nose radius compensation: Left	S
p	pgm	B	G42	Cutter radius compensation: Right	S
			G43		
			G44		
			G45		
			G46		
			G47		
p	list		G48	Service Use: Start APA trace (was G38)	S

<a href="#">home</a>		<b>Lathe G-code</b>		
released: Oct 13				
P3 ckd		new codes since last release		
Ref Man	Type Code	Code	Functional explanation	S/B
p	list	G49	Service Use: End APA trace (was G39)	S
p	pgm	B G50	Zero offset, maximum spindle speed designation	S
p	list	G51	Work coordinate select	
p	mult	A G52	Tool offset Angle Mode- Macturn B-axis	S
		G53		
p	list	G54	Tool Length offset X-axis (special spec)	B
p	list	G55	Tool Length offset Y-axis (special spec)	B
p	list	G56	Tool Length offset Z-axis (special spec)	B
		G57		
		G58		
		G59		
		G60		
		G61		
p	sub	I G62	Mirror image coordinate selection check- Y or Z	S
		G63		
p	pgm	B G64	Droop control OFF	S
p	pgm	B G65	Droop control ON	S
		G66		
		G67		
		G68		
p	list	G69	Longitudinal Taper cutting cycle	S
p	list	G70	Traverse Taper cutting cycle	S
p	pgm	B G71	Compound fixed thread cutting cycle: Longitudinal	S
p	pgm	B G72	End face thread cutting compound fixed cycle	S
p	pgm	B G73	Longitudinal grooving compound fixed cycle	S
p	pgm	B G74	End face grooving compound fixed cycle	S
p	pgm	B G75	Automatic chamfering	S
p	pgm	B G76	Automatic rounding	S
p	pgm	B G77	Tapping cycle: Forward thread	S
p	pgm	B G78	Tapping cycle: Reverse thread	S
		G79		
			<b>Lap Cycles</b>	
p	pgm	B G80	End of shape designation	S
p	pgm	B G81	Start of longitudinal shape designation	S
p	pgm	B G82	Start of transverse shape designation	S
p	pgm	B G83	Start of material shape designation	S
p	pgm	B G84	Change of cutting conditions in bar turning cycle	S
p	pgm	B G85	Call of rough bar turning cycle	S
p	pgm	B G86	Call of rough copy turning cycle	S
p	pgm	B G87	Call of finish turning cycle	S
p	pgm	B G88	Call of continuous thread cutting cycle	S
		G89		
p	pgm	B G90	Absolute programming	S
p	pgm	B G91	Incremental programming	S
		G92		
p	spc	G93	Inverse Time Feed	
p	pgm	B G94	Feed per minute mode (mm/min)	S
p	pgm	B G95	Feed per revolution mode (mm/rev)	S
p	pgm	B G96	Constant speed cutting ON	S
p	pgm	B G97	Cancel of G96	S
p	cas	G98	CAS Interference Check Cancel OFF (mat'l cut)	S
p	cas	G99	CAS Interference Check Cancel ON (No mat'l cut)	S

<a href="#">home</a>		<b>Lathe G-code</b>			
released: Oct 13					
P3 ckd		new codes since last release			
Ref Man	Type Code	Code	Functional explanation	S/B	
p	3812	B	G100	Priority command for turret A or B independent cutting	S
p	pgm	I	G101	Linear interpolation in contour generation (CCW)	S
p	pgm	I	G102	Circular interpolation in face contour generation (CW)	S
p	pgm	I	G103	Circular interpolation in face contour generation (CCW)	S
p	5452		G104	Cancel X-axis Mirror Image (V100R/L)	
p	5452		G105	Select X-axis Mirror Image (V100R/L)	
			G106		
p	spc	I	G107	Spindle synchronized tapping: CW thread	B
p	spc	I	G108	Spindle synchronized tapping: CCW thread	B
			G109		
p	pgm	B	G110	Constant speed cutting on turret A	S
p	pgm	B	G111	Constant speed cutting on turret B	S
p	spc	I	G112	Circular thread cutting CW	S
p	spc	I	G113	Circular thread cutting CCW	S
p	list		G114	Turret B designation	
p	list		G115	Work coordinate select (10/50 sets) Special spec.	
p	6290		G116	W to Z-axis Overlap control- OFF	
p	6290		G117	W to Z-axis Overlap control- ON (O-058, 04)	
p	list		G118	Compound Fixed Cycle: Return Level	
p	pgm	A	G119	Tool nose radius compensation: C-X-Z plane	S
p	spc		G120	C-axis Multi-turn mode OFF	
p	spc		G121	C-axis Multi-turn mode ON	
p	sub	I	G122	W-axis control, turret A designation	S
p	sub	I	G123	W-axis control, turret B designation	S
p	lawV		G124	Chuck A origin effective (LawV ACC)	S
p	lawV		G125	Chuck B origin effective (LawV ACC)	S
p	mult	A	G126	Slant machining mode OFF	S
p	mult	A	G127	Slant machining mode ON	S
	4436	A	G128	YS-axis spindle center for Mac-30 Headstock lower pos.	S
p	list		G128	Machining Mode Cancel	
	4436	A	G129	YS-axis spindle center for Mac-30 Headstock upper pos.	S
p	list		G129	Machining Mode	
p	list	A	G130	C-axis sending for angle phase detection	B
p	5692	A	G131	Gauge Skip Cycle: No Return to Start point- P1/200 (G30)	S
p	pgm	I	G132	Circular interpolation in side contour generation (CW)	S
p	pgm	I	G133	Circular interpolation in side contour generation (CCW)	S
p	list		G134	Z-axis A-turret auto.	B
p	list		G135	Z-axis B-turret auto.	B
p	pgm	I	G136	End of coordinate conversion, Y-axis control cancel	S
p	pgm	I	G137	Start of coordinate conversion	S
p	yax	I	G138	Y-axis control ON	S
p	list		G139	Y-axis Turning position rapid positioning	S
p	sub	B	G140	L-spindle selection, main spindle selection	S
p	sub	B	G141	R-spindle selection, sub-spindle selection	S
p	4436	B	G142	Sub-spindle selection (Mac-30 only)	S
p	list		G143	The 3rd turret mode	B
p	LT	B	G144	Right spindle W-axis control Off	S
p	LT	B	G145	Right spindle W-axis control On (LT10/200)	S
	4078		G146	LT10-1S Mirror Mode OFF (OSP 7000)	S
	4078		G147	LT10-1S Mirror Mode ON (OSP 7000)	S
p	mult	A	G148	Full B-axis mode OFF (Macturn)	
p	mult	A	G149	Full B-axis mode ON (Macturn)	

<a href="#">home</a>		<b>Lathe G-code</b>			
released: Oct 13					
P3 ckd		new codes since last release			
Ref	Type	Code	Functional explanation	S/B	
mult	A	G150	G-code macro- Mill mode, full B-axis (Macturn)		
p		G150	G-code macro- Turning command (Millac 33T)		
mult	A	G151	G-code macro- Turn mode, full B-axis (Macturn)		
p		G151	G-code macro- Mill command, (Millac 33T)		
p	spc	B	G152	Programmable tailstock movement	S
p	list		G153	Programmable Steadyrest (Type-B, tow-along, Y-axis 90)	S
p	4436		G154	Uni-directional W-axis positioning cycle (Macturn)	S
p	list		G155	Accurate contouring mode ON	S
p	list		G156	Accurate contouring mode OFF	S
p	5499		G157	G-code macro- Grinding command (Millac 33T)	
p	mult		G158	Tool length offset in tool axis direction	S
p	mult		G159	Tool length offset in tool axis direction (w/o rotary pos off.)	S
p	mult		G160	Tool length offset in tool axis direction cancel	S
p	spc	A	G161	G-code macro function: MODIN	
p	spc	A	G162	G-code macro function: MODIN	
p	spc	A	G163	G-code macro function: MODIN	
p	spc	A	G164	G-code macro function: MODIN	
p	spc	A	G165	G-code macro function: MODIN	
p	spc	A	G166	G-code macro function: MODIN	
p	spc	A	G167	G-code macro function: MODIN	
p	spc	A	G168	G-code macro function: MODIN	
p	spc	A	G169	G-code macro function: MODIN	
p	spc	A	G170	G-code macro function: MODIN	
p	mult	A	G171	G-code macro- Macturn- Turret tool change movement	
p	list		G172	G-code macro- MSB	
p	5097	A	G173	G-code macro- Sub-spindle macro (Mac 30)	
p	mult	A	G174	G-code macro- Zero point shift (B-axis machine)	
p	mult	A	G175	G-code macro- Zero point shift Cancel (B-axis machine)	
p			G176	G-code macro- MSB (OSP 7000 B-spec)	
			G177	(OSP 7000 B-spec)	
			<b>M-tool Compound Cycles</b>		
p	pgm	B	G178	Synchronized tapping cycle (CW)	S
p	pgm	B	G179	Synchronized tapping cycle (CCW)	S
p	pgm	B	G180	M-tool compound cycle: Cancel	S
p	pgm	B	G181	M-tool compound cycle: Drilling	S
p	pgm	B	G182	M-tool compound cycle: Boring	S
p	pgm	B	G183	M-tool compound cycle: Deep hole drilling	S
p	pgm	B	G184	M-tool compound cycle: Tapping	S
p	pgm	B	G185	M-tool compound cycle: Longitudinal thread cutting	S
p	pgm	B	G186	M-tool compound cycle: End face thread cutting	S
p	pgm	B	G187	M-tool compound cycle: Longitudinal straight thread	S
p	pgm	B	G188	M-tool compound cycle: End face straight thread cutting	S
p	pgm	B	G189	M-tool compound cycle: Reaming/boring	S
p	pgm	B	G190	M-tool compound cycle: Key groove	S
p	yax	I	G191	M-tool compound cycle: Vertical groove	
			G192		
			G193		
p	list		G194	Initial condition macro	S
p	spc	I	G195	Multus/NC Tailstock Sizing Position Number (SP=nn)	
p	list	I	G196	FOPENA (P100)	
p	list	I	G197	FOPENB (P100)	
p	list	I	G198	FWRITC (P100)	

<a href="#">home</a>		<b>Lathe G-code</b>			
released: Oct 13					
P3 ckd		new codes since last release			
Ref Man	Type Code	Code	Functional explanation	S/B	
p	list	I	G199	CLOSE (P100)	
p	list		G200	Tool machining Information management command	S
p	list		G201	CASCME (CAS)	
p	list		G202	CASML	S
p	list		G203	CALRG (Direct Radius command)	S
p	list		G204	CASCTL (CAS)	
p	spc	A	G205	G-code macro function: Call	
p	spc	A	G206	G-code macro function: Call	
p	spc	A	G207	G-code macro function: Call	
p	spc	A	G208	G-code macro function: Call	
p	spc	A	G209	G-code macro function: Call	
p	spc	A	G210	G-code macro function: Call	
p	spc	A	G211	G-code macro function: Call	
p	spc	A	G212	G-code macro function: Call	
p	spc	A	G213	G-code macro function: Call	
p	spc	A	G214	G-code macro function: Call	
p	mult		G215	MSG	B
p	mult		G216	NMSG	B
p	list		G217	COPY	S
p	list		G218	COPYE	S
p	list		G219	RTMCR	S
p	list		G220	NOEX (NO EXecute in Single Block by parameter)	S
p	list		G221	CALL (User Task)	S
p	list		G222	RTS (User Task)	S
p	list		G223	MODIN (User Task)	S
p	spc	A	G224	MODOUT, Cancel MODIN Macro (G161-170)	S
p	list		G225	GOTO (User Task)	S
p	list		G226	IF (User Task)	S
p	list		G227	ROBOT	S
p	list		G228	PRNT (Gage Output)	S
p	list		G229	DEF (Graphics)	S
p	list		G230	DELETE	S
p	list		G231	SAVE	S
p	list		G232	READ (User Task)	S
p	list		G233	WRITE (User Task)	S
p	list		G234	DRAW (Graphics)	S
p	list		G235	CLEAR (Graphics)	S
p	list		G236	LCLEAR (Load monitor)	S
p	list		G237	MHPS	S
p	list		G238	LOADER	S
p	list		G239	WCPY (Graphics)	S
p	list		G240	TLID (Tool Life)	S
p	list		G241	EIN (Tool Retract)	S
p	list		G242	DIN (Tool Retract)	S
p	list		G243	RTI (Tool Retract)	S
p	2spH	I	G244	LF- Right Spindle program- RSPN	S
p	2spH	I	G245	LF- Left Spindle program- LSPN	S
p	list		G246	XCAM (Cam spec)	S
p	list		G247	XCAM1 (Cam spec)	S
p	list		G248	FCALLB (Cam spec)	S
p	list		G249	FCALL (Cam spec)	S
p	list		G250	LMW	S

<a href="#">home</a>		<b>Lathe G-code</b>		
released: Oct 13				
P3 ckd		new codes since last release		
Ref Man	Type Code	Code	Functional explanation	S/B
p	list	G251	LMV	S
p	list	G252	NCYL	
p	list	G253	RTMDI	S
p	spc	G254	TCPC Disable	
p	spc	G255	TCPC Enable	
p	5890	G256	Spindle Inertia identification (macro)	
		G257		
		G258		
		G259		
		G260		
		G261		
		G262		
p	list	G263	Spindle Inertia identification function	
p	spc	G264	Super- NURBS / Hi-Cut Pro OFF	S
p	spc	G265	Super- NURBS / Hi-Cut Pro ON	S
		G266		
	spc	G267	Retract Command Cancel	
p	list	G267	Machining mode (Turning)	
	spc	G268	Retract Axis Function	
p	list	G268	Machining mode (C-axis machining)	
p	list	G269	Machining mode (Y-axis machining)	
p	pgm	G270	Machining mode designate:Turning	
p	pgm	G271	Machining mode designate:C-axis machining	
p	pgm	G272	Machining mode designate:Y-axis machining	
		G273		
		G274		
			<b>Coordinate Calculation Function</b>	
p	list	G275	RTMCRP, Return Coordinate Macro	
p	list	G276	LOMIT, Omit	
p	list	G277	RSTRT, Restart	
p	list	G278	LAA, Line At Angle	
p	list	G279	GRDX, Grid X	
p	list	G280	GRDY, Grid Y	
p	list	G281	DGRDX, Houndstooth Check X	
p	list	G282	DGRDY, Houndstooth Check Y	
p	list	G283	SQRX, Square X	
p	list	G284	SQRY, Square Y	
p	list	G285	DHC, Bolt Hole Cycle	
p	list	G286	ARC, Arc	
p	list	G287	MCRNO, Macro Invalid	
		G288		
		G289		
p	list	G290	SCRIPT (Script function)	
p	list	G291	SLOAD (Script function)	
p	list	G292	SCALL (Script function)	
p	list	G293	SCALLS (Script function)	
p	list	G294	SCALLE (Script function)	
p	list	G295	SCALLSE (Script function)	
p	list	G296	M-Tool Compound Fixed Cycle: Fine Boring	
p	list	G297	M-Tool Compound Fixed Cycle: Back Boring	
p	list	G298	M-Tool Compound Fixed Cycle: Reverse Tapping	
p	list	G299	LBB Rotation Enable position HP command	

<a href="#">home</a>		<b>Lathe G-code</b>		
released: Oct 13				
P3 ckd		new codes since last release		
Ref Man	Type Code	Code	Functional explanation	S/B
p	lbb	G300	LBB T1 Rotation (Mult 750)	
p	lbb	G301	LBB T3 Rotation (Mult 750)	
p	spc	G302	3D Coordinate Conversion OFF	
p	spc	G303	3D Coordinate Conversion ON	
p	list	G304	Single Block Ignore OFF	
p	list	G305	Single Block Ignore ON	
p	list	G306	Optimal Time Constant value setting OFF	
p	list	G307	Optimal Time Constant value setting ON	
		G308		
		G309		
p	LT	G310	Constant Speed Cutting Turret C	O
p	list	G311	Constant Speed Cutting Turret D	O
		G312		
p	LT	G313	Turret selection: Turret C (3rd)	O
p	list	G314	Turret selection: Turret D	O
		G315		
		G316		
		G317		
		G318		
		G319		
		G320		
		G321		
p	LT	G322	W-axis command for sub-spindle Turret C	O
p	list	G323	W-axis command for sub-spindle Turret D	O
		G324		
		G325		
		G326		
		G327		
		G328		
		G329		
p	list	G330	WHILE	O
p	list	G331	DO	O
p	list	G332	END	O
p	list	G333	THEN	O
		G334		
		G335		
		G336		
		G337		
		G338		
		G339		
		G340		
		G341		
		G342		
		G343		
		G344		
		G345		
		G346		
		G347		
		G348		
		G349		
		G350		
		G351		

# Lathe G-code

released: Oct 13

P3 ckd new codes since last release

Ref Man	Type Code	Code	Functional explanation	S/B
		G352		
		G353		
		G354		
		G355		
		G356		
		G357		
		G358		
		G359		
		G360		
		G361		
		G362		
		G363		
		G364		
		G365		
		G366		
		G367		
		G368		
		G369		
		G370		
		G371		
		G372		
		G373		
		G374		
		G375		
		G376		
		G377		
		G378		
		G379		
		G380		
		G381		
		G382		
		G383		
		G384		
		G385		
		G386		
		G387		
		G388		
		G389		
		G390		
		G391		
		G392		
		G393		
		G394		
		G395		
		G396		
		G397		
		G398		
		G399		
		G400		
		G401		
		G402		
		G403		

# Lathe G-code

released: Oct 13

P3 ckd new codes since last release

Ref Man	Type Code	Code	Functional explanation	S/B
		G404		
		G405		
		G406		
		G407		
		G408		
		G409		
		G410		
		G411		
		G412		
		G413		
		G414		
		G415		
		G416		
		G417		
		G418		
		G419		
		G420		
		G421		
		G422		
		G423		
		G424		
		G425		
		G426		
		G427		
		G428		
		G429		
		G430		
		G431		
		G432		
		G433		
		G434		
		G435		
		G436		
		G437		
		G438		
		G439		
		G440		
		G441		
		G442		
		G443		
p	spc	G444	Tool Posture Fluctuation Reduction mode OFF	O
p	spc	G445	Tool Posture Fluctuation Reduction mode ON	O
		G446		
		G447		
		G448		
		G449		
		G450		
		G451		
		G452		
		G453		
		G454		
		G455		

home		Lathe G-code		
released: Oct 13				
P3 ckd		new codes since last release		
Ref Man	Type Code	Code	Functional explanation	S/B
		G456		
		G457		
		G458		
		G459		
		G460		
		G461		
		G462		
		G463		
		G464		
		G465		
		G466		
p	list	G467	3-D Coordinate Index command	O
p	list	G468	3-D Coordinate Conversion cancel	O
p	list	G469	3-D Coordinate Conversion	O
		G470		
		G471		
		G472		
		G473		
		G474		
		G475		
			Codes Not Used/Tested by OAC	
	B		Basic code	
	I		Intermediate code	
	A		Advanced code	
			Standard software	S
			B-spec software	B
<b>Reference Manuals</b>				
p	List	5946	P300 Programming Appendix	
h	Lst2	n/a	P300 Control Help list	
	Pgm	5946	P300 Programming	
	SpC	5948	P300 Special Function	
	Sub	6146	P300 Sub-spindle function	
	Yax	6147	P300 Y-axis function	
	Gag	5908	P300 Gauging function (inc. Y)	
	GagA	5972	P300 Gauging- Application	
	SlY	6082	P300 Slant Y-axis Gauging	
	Cas	5881	CAS- Basic	
	Oper	5895	P300-L/S Operation (basic)	
	LT	6074	P300 LT-EX Operation	
	Lvt	6170	P300 LVT Oper.	
	Cam	6344	P300 Cam Lathe	
	lawV	6332	P300 Law-V and ACC	
	2spH	6244	P300 2SP-H Oper (inc-OGI)	
	Mult	5947	P300S Multus (H1) Oper	
	YB	6055	P300S VTM-YB	
	VTR	6336	P300S VTR Oper	
	LBB	6120	P300 B750 Long Boring Bar	